



US006596304B1

(12) **United States Patent**  
**Bayon et al.**

(10) Patent No.: **US 6,596,304 B1**  
 (45) Date of Patent: **Jul. 22, 2003**

(54) **METHOD FOR PREPARING TWO-LAYER  
 BICOMPOSITE COLLAGEN MATERIAL  
 FOR PREVENTING POST-OPERATIVE  
 ADHESIONS**

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(\*) Notice: Subject to any disclaimer, the term of this  
 patent is extended or adjusted under 35  
 U.S.C. 154(h) by 0 days.

(21) Appl. No.: **09/554,509**

(22) PCT Filed: **Sep. 16, 1999**

(86) PCT No.: **PCT/FR99/02212**

§ 371 (c)(1),  
 (2), (4) Date: **Jul. 11, 2000**

(87) PCT Pub. No.: **WO00/16821**

PCT Pub. Date: **Mar. 30, 2000**

(30) **Foreign Application Priority Data**

Sep. 18, 1998 (FR) ..... 98 11701

(51) Int. Cl.<sup>7</sup> ..... **A61L 15/16; C12N 11/02;  
 C12M 5/06; C12M 5/08; C08H 1/00**

(52) U.S. Cl. .... **424/444; 426/93.7; 426/426;  
 435/177; 435/395; 530/356; 530/402**

(58) Field of Search ..... **435/174, 177,  
 435/180, 182, 395, 397, 398, 402; 524/423,  
 426, 444, 93.7; 530/356, 402, 812; 606/151;  
 600/41**

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(57) **ABSTRACT**

A bicomposite material based on collagen is prepared which has two closely bound layers and is biocompatible, non-toxic, hemostatic and biodegradable in less than a month, and can be used in surgery to achieve hemostasis and prevent post-surgical adhesion. To prepare the material, a solution of collagen or gelatin, which may contain glycerine and a hydrophilic additive such as polyethylene glycol or a polysaccharide, is poured onto an inert support to form a layer 30  $\mu\text{m}$  to less than 100  $\mu\text{m}$  thick. Then a polymeric porous fibrous layer is applied during gelling of the collagen or gelatin, and the resultant material is dried. The polymeric porous fibrous layer may be made of collagen or a polysaccharide, and have a density of not more than 75  $\text{mg}/\text{cm}^2$ , a pore size from 30  $\mu\text{m}$  to 300  $\mu\text{m}$  and a thickness of 0.2 cm to 1.5 cm.

**30 Claims, 2 Drawing Sheets**